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# Software Support Activity Information Technology Update Newsletter

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SSC San Diego
San Diego, CA 92152-5001

**SSC SAN DIEGO**
**San Diego, California 92152-5001**

**F. D. Unetic, CAPT, USN**
**Commanding Officer**

**C. A. Keeney**
**Executive Director**

## ADMINISTRATIVE INFORMATION

This periodical provides a collection of articles written by the Joint Program Executive Office for Chemical and Biological Defense (JPEO-CBD) Software Support Activity (SSA) as a consistent method of communicating SSA efforts and vision, while providing awareness of key enterprise challenges. The JPEO-CBD is managed by the Space and Naval Warfare Systems Center San Diego (SSC San Diego) and is directed by the Space and Naval Warfare Systems Command. The SSA is a team composed of government and contractor agencies that provide enterprise support in the key tenets of net-centric operations to U.S. Department of Defense chemical and biological programs.

Released by
D. R. Hardy, Head
Effects Based Information Systems

Under authority of
T. Tiernan, Head
Command and Control
Technology and
Experimentation Division

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SB

JPEO-CBD
SOFTWARE
SUPPORT
ACTIVITY

SSA Information Technology Update

Volume 2, Issue 1 Q1 FY07

Spotlight on Architecture

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## Architecture

# CBRN INTEGRATED ARCHITECTURE - BRINGING THE PIECES TOGETHER

By David W. Godso, JPEO-CBD SSA Chief Software Architect

*Previously published in the Chem-Bio Defense Quarterly magazine*
*Please see Article Updates on page 6*

### An Introduction to Architecture

The Department of Defense (DoD) defines "Architecture" as "the structure of components, their relationships, and the principles and guidelines governing their design and evolution over time." As DoD drives all capabilities toward Net-Centric Operations and Warfare (NCOW), architectures provide a critical mechanism for:

* Understanding operational concepts and their relationship to capabilities, technologies, systems, and standards (Figure 1).
* Anticipating changes in operational concepts or changes in automated capabilities.
* Acquiring both materiel and non-materiel assets.
* Developing a roadmap that takes us from where we are to where we want to be.

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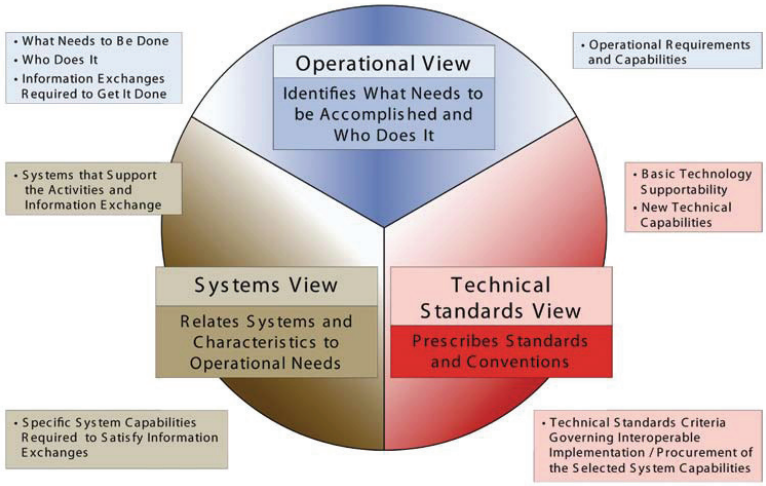


*Figure 1 – Relationships between Architectural Views*

## Information Assurance

The JPEO-CBD Software Support Activity (SSA) Information Assurance (IA) team provides technical expertise related to all aspects of DoD IA certification and accreditation processes for JPEO-CBD systems. Currently the IA team is working to coordinate the transition from the DoD Information Technology Security Certification and Accreditation Process (DITSCAP) to the DOD Information Assurance Certification and Accreditation Process (DIACAP). This article provides information on DIACAP and the transition process.

**DIACAP Defined**

The DoD is transforming its information security posture in response to changes in Information Technology (IT) and Federal requirements and guidelines. There have been many changes in the way the DoD acquires, uses, and operates IT. The E-Government Act Title III of the E-Government Act, Federal Information Security Management Act (FISMA), which requires Federal departments and agencies to develop, document, and implement an organization-wide program to provide information assurance.

DIACAP DoDI 8510.bb, Interim Guidance Memorandum was released in July 2006, outlines a new integrated and automated process for the Certification and Accreditation (C&A) of all DoD information systems and for determining whether these systems should be authorized to operate. It supersedes DODI 5200.40 and DoD 8510.1-M. It is the newest method for identifying, implementing, and validating information assurance controls and for managing information assurance posture across DoD information systems consistent with the FISMA. It introduces automated tools, Knowledge Service (KS) and Enterprise Mission Support Services (eMASS) to allow for collaboration and integration with the Global Information Grid (GIG) environment.

DIACAP was created to provide guidance and integration for compliance with GIG. DIACAP is a dynamic process in which IA posture is reviewed not less than annually. It has a DoD enterprise C&A decision structure and implements enterprise level baseline IA Controls based on the IS Mission Assurance Category (MAC) and Confidentiality Level (CL). IA Controls may be augmented at the DoD Component level and the IS level. DIACAP places the responsibility of establishing DIACAP objectives, context & decision structure on DoD Senior Information Assurance Official (SIAO) and the Principle Approving Authority (PAA) representatives.

DIACAP ensures that DoD is consistent with FISMA, DoDD 8500.1 and DoDI 8500.2 and supports net-centricity through an effective and dynamic C&A process.

If you have questions about DIACAP or how it applies to you, please contact the SSA IA Lead, CK Kwiatkowski, at (619) 553-5382, or the SSA IA Deputy, Suzana Meszaros, at (619) 664-4479.

## Integration & Test

### MODELING AND SIMULATION 101: AN INTRODUCTION TO M&S

To provide a common understanding of terms within the community, **Modeling and Simulation** (M&S) was carefully defined in Department of Defense Directive DoDD 5000.59. A **model** is a physical, mathematical, or otherwise logical representation of a system, entity, phenomenon, or process, while a **simulation** is a method for implementing a model over time. As projects become more complex in government and industry, and as the testing costs of large systems increases, M&S provides an increasingly valuable tool for analyzing and understanding the behaviors of complex systems. M&S plays a key role in the Chemical, Biological, Radiological and Nuclear Defense (CBRND) community because much of the CBRND activities are restricted by environmental laws such as the Clean Air Act. Many CBRN programs would have serious social/political implications if their testing and experimentation activities were conducted in normal open environments. Therefore, much of the CBRND testing

*(Continued on page 7)*

## Standards & Policy

A policy area receiving increased attention in JPEO-CBD is the Information Support Plan (ISP). The ISP is directed by DoD Instruction 5000.2, Operation of the Defense Acquisition System, and is part of the Clinger-Cohen Act Compliance. All IT and National Security Systems (NSS) programs must have an ISP.

DoD policy requires the Heads of the DoD Components to establish an internal ISP management process that includes coordination with all affected DoD Components. Even though DoD policy also states that DoD Components shall manage the review of all ISPs within the Component organization, ASD(NII) wants to ensure that Joint program's ISPs are coordinated with the Service's that will be using their products.

The automated tool prescribed for coordinating ISPs won't route ACAT II and III ISPs to DoD Components unless they are on a special interest list. For these JPEO programs that aren't on the list, S&P is collaborating with OSD, CJCS, and the automated tool manager to work out a solution to this problem.

If you have questions about the ISP, or other standards and policies, please contact Dan Reuben at dreuben@spawar.navy.mil

## Help Desk

The SSA Help Desk team established the CBD IT Help Desk in 2006 to provide more complete IT support to the war fighter; namely a 24/7 call center capability, an enterprise level problem management system, and the beginning of a knowledge database system to enhance Tier 1 problem resolution capabilities.

In the 1st quarter of FY07 the JPEO-CBD unveiled the CBRN-Information Resource Center (CBRN-IRC) in an effort to provide a consolidated one number Tier 1 solution for Help Desk support. The CBRN-IRC acts as a hub for accessing all the resources available to resolve customer inquiries. In the process of resolving their issue, customers may be connected with additional Tier 2 or 3 support resources such as the CBD IT Tier 2 Help Desk. JPEO-CBD customers may call the 24/7 toll free number (800-831-4408) for assistance. The CBRN-IRC may also be contacted via NIPRNET email, CEH@ria.army.mil or FAX (309) 782-1919.

Seamless access to JPEO-CBD product support organizations is a primary goal of the JPEO, and the SSA Help Desk team is currently working with the CBRN-IRC team to integrate

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## SSA Highlights

May 29– 2 June 2006 - Standard CMMI Assessment Method for Process Improvement (SCAMPI) B Assessment

July 18-20, 2006 - Data Model Technical Review of CBRN Data Model v1.4, San Diego, CA

August 21-25 2006 - SCAMPI A Assessment

September 12 2006 - Roadshow visit to JPM Guardian.

September 14 2006 - Roadshow visit to JPM Biological Detection.

November 28-30 - SSA All Hands meeting

*The CMMI Level 2 award is presented by SSC San Diego Commanding Officer Frank Unetic and Executive Director Carmela Keeney (both at far right) to (left to right) Lillian Craven (Department 240 Process Improvement Agent), Doug Hardy (SSA Project Manager), and Kevin Adams (SSA Director)*

# CBRN Integrated Architecture—Bringing the Pieces Together

*(Continued from page 1)*

An architecture description is defined to be an integrated architecture when products and their constituent architecture data elements are developed such that elements defined in one view are the same (i.e., same names, definitions, and values) as elements referenced in another view. Integrated architectures with Doctrine, Organization, Training, Materiel, Leadership & education, Personnel, and Facilities (DOTMLPF) information provide important tools to facilitate coordination between requirements document developers, planners, programmers, budgeters, system acquirers and developers, and interoperability enforcers. These architectures:

* Clarify roles, boundaries, and interfaces between components of large System of Systems (SoSs).
* Influence participants in requirements generation, acquisition, resource allocation, interoperability enforcement, and waiver processes.
* Are the primary tools for enterprise level systems integration.

**The SSA Architecture Team**

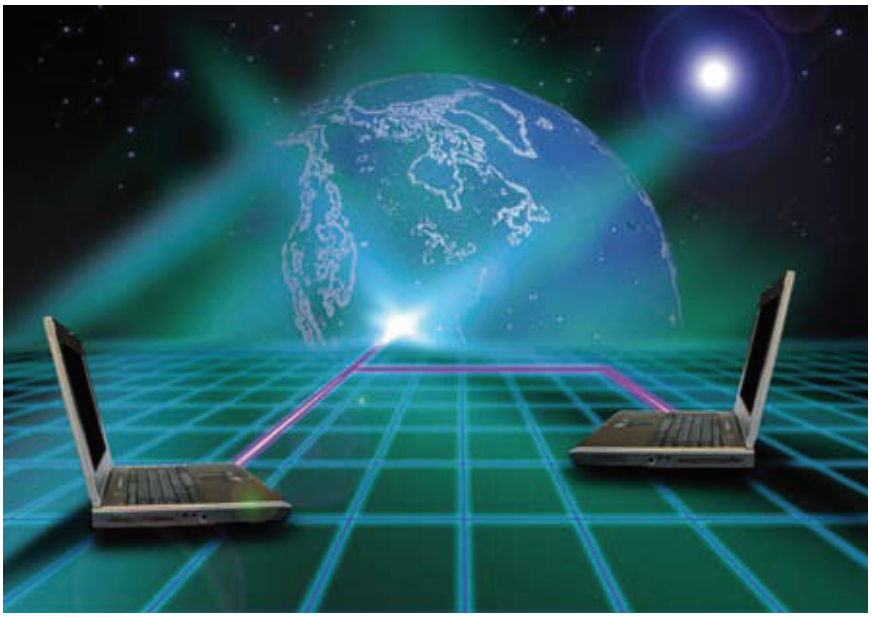
The SSA Architecture Team looks across the Joint Program Executive Office for Chemical and Biological Defense (JPEO-CBD) Programs of Record for common systems and software engineering themes. The overarching goal is to facilitate reuse and align programs to net-centric Service Oriented Architectures and implementations based on the DoD's Data Strategy. The SSA Architecture Team serves as the JPEO-CBD Software Integrated Product Team (IPT), reporting directly to the JPEO-CBD Chief Systems Engineer (CSE), having Chief Software Architect (CSA) responsibilities across JPEO-CBD.

**The JPEO-CBD SSA Architecture Team is chartered to:**

* Develop, validate, and implement a technical Command, Control, Communications, Computers, and Intelligence (C4I) architecture in support of the operational requirement developed by the Joint Requirements Office (JRO) DoD Architecture Framework (DoDAF) compliant Integrated Architecture.
* Maintain and shape the Integrated Architecture to address new technology, changing assumptions, and emerging requirements, including transition and mapping to the Global Information Grid (GIG) 2.0 and the NCOW Reference Model (RM).
* Maintain common frameworks that support and specify integrated individual, family or system of systems, including applicable operating systems, programming languages, tools, and core components as applicable.

**The SSA Architecture Team has three fundamental operating principles:**

* Provide support to programs requiring expertise in systems and software engineering as it relates to meeting program milestones.
* Provide strategic technical expertise in terms of specification development, technology evaluation, and identification of common services and standards such that all "information technology" across the Chemical Biological Defense Program (CBDP) can be reused so CBDP programs can focus resources on CBDP-specific problems.
* Understand the pieces that currently exist, how they relate, where we need to go to achieve the net-centric vision, and provide recommendations to senior leadership to move the Enterprise in DoD's intended "DoD as a net-centric enterprise" direction.



*Integrated, dependable, safe, small, net-centric wireless CBRN capabilities and situational*

**SSA Architecture Team Activities**

Stewardship of Architecture and Data Products Creating a Memorandum of Understanding (MOU) Among Stakeholders.

Our initial challenge was to distill tremendous amounts of DoD policy and instructions related to capabilities (CJCSI 3170.01 Series) and architecture development (DoDAF) into something CBRN stakeholders could easily understand and employ. We needed a definitive way to understand who was responsible and accountable for what products. We wanted a process for architecture product creation and evolution that yielded CBRN Warfighter Capabilities that reflect how we must fight in the 21st century. In an effort to codify the responsibilities in architecture and data product development the SSA, in conjunction

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# CBRN Integrated Architecture—Bringing the Pieces Together

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with the JRO-Chemical, Biological, Radiological, and Nuclear Defense (JRO-CBRND) Architecture Team, created a key MOU between JRO-CBRND and JPEO-CBD. The MOU, "Stewardship of Department of Defense (DoD) Chemical, Biological, Radiological, and Nuclear (CBRN) Architecture Products," was signed by Brig. Gen. Stephen Reeves, JPEO-CBD and Maj. Gen. Howard Bromberg, Director, JRO-CBRND.

This MOU ensures that the components of the CBRN architecture are developed in a coordinated manner resulting in an integrated CBRN data model and architecture for the CBRN Community of Interest (COI). The architecture encompasses DoD-wide CBRN processes and all architecture and data products produced as part of the requirements and acquisition processes for CBRND Programs of Record by the JRO-CBRND and JPEO-CBD. It is critical that we provide:

* Seamless linkage of the DoD CBRN architecture products and data.
* Relationships between and overarching responsibilities of the organizations of stewardship of the architecture products
* Architecture and data products that use the same language with the same meaning to minimize duplication of effort and information conflicts.

## IMPLEMENTING THE MOU

### Configuration Management Plan

The MOU outlines responsibility for DoD-wide baseline releases of each Program of Record's architecture and data products. Furthermore, it specifies the establishment of a Joint CBRN (JCBRN) Configuration Management Plan (CMP), to manage change across products.

The JCBRN CMP is in draft and has been reviewed by the Services. In addition, Architecture and Data repositories have been created on the JPEO-CBD Integrated Digital Environment (IDE) that contain latest releases of baselined CBRN Architecture and Data products (contact Mrs. Denise Milligan –dmilli@spawar.navy.mil, for more information).

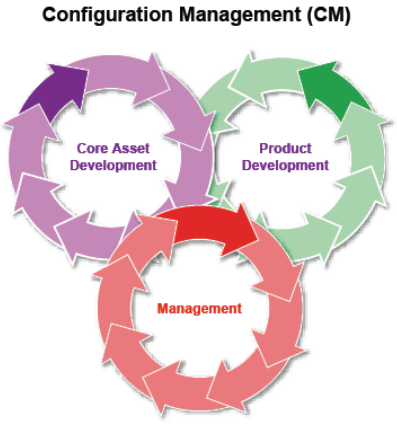
Configuration Management of Common Reusable Product Lines is Key!

### Working Groups

Two technical working groups have been established in the areas of Data and Architecture, which consist of participants from the JRO-CBRND and JPEO-CBD JPMs.

**Data** – For some time now, the Joint Program Manager Information Systems (JPM IS) Data Team has been releasing CBRN Data Model, CBRN Extensible Markup Language (XML) Schema, and CBRN Style Guide products and holding working group meetings to vet updates. Traditionally, these meetings have been focused on JPM IS Programs of Record. However, with the establishment of the SSA, the SSA Data Management functional area now coordinates Data Model release and reviews across the CBDP, via a JCBRN Data Working Group (DWG). The meetings occur in conjunction with Data product releases (contact Dr. Tom Johnson, JPM IS Data Acquisition Program Manager (APM) and SSA Data Management Lead - thjohnso@nps.edu, for more information).

**Architecture** – The JRO-CBRND Architecture Team and the JPEO-CBD SSA Architecture Team have stood up a JCBRN Architecture Working Group (AWG). The JCBRN AWG discusses requirements, systems, and technical issues which span more than one Program of Record, and subsequently resolves issues and makes enterprise recommendations to senior leadership. The meeting is scheduled on the second Wednesday of every month at 10:00




Pacific (contact Mr. David W. Godso – godso@spawar.navy.mil, for more information).

All JRO and JPEO-CBD JPM technical representatives are encouraged to provide key technical participants for the JCBRN DWG and AWG.

## SSA ARCHITECTURE TEAM FUTURE INITIATIVES

Some of the initiatives on our horizon:

* Develop and distribute "Net-Ready" contracts language and specifications that any program in the CBDP containing a software, network, or data component can reuse for building systems that are "net-ready" and "plug-in" to the CBRN Information Systems backbone.
* Work with the SSA Data Management Team, JPM IS, JPM Contamination Avoidance (CA), JPM Bio-Detection (BD), JPM Guardian, and JPM Chemical Biological Medical Systems (CBMS) on defining standard sensor data formats and protocols.
* Establish a sensor data repository that will contain configuration controlled sensor interface specifications for all of the sensors in use across the CBDP.
* Actively track the Net-Centric Operations Warfare (NCOW) Reference Model (RM), and the Joint Command and Control (JC2), Net-Centric Enterprise Services (NCES), Global Command and Control System
* Joint (GCCS-J), and Joint Tactical Common Operational Picture (COP) Workstation (JTCW) programs to continually assess their maturity and update our migration strategy accordingly.
* Support the Army Software Blocking (ASWB) process with respect to ensuring that we have the points of contact and expertise necessary to support our programs in preparing for and executing the insertion of JPEO-CBD programs into the ASWB. Similarly support and participate in analogous other-Service

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## CBRN Integrated Architecture—Bringing the Pieces Together

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processes, such as the Federation of Systems (FedOS) for the United States Marine Corps (USMC).

* Stay abreast of current and new initiatives across the JPEOCBD JPMs by attending key JPM conferences and JRO Integrated Concept Team (ICT) meetings.

**SUMMARY**

Aligning CBRN programs on technical themes, sharing common services, and creating a consistent enterprise migration strategy are highly dependent on teamwork, and specifically:

* Active participation from the projects and other stakeholders.
* Willingness to look beyond an individual project's needs.
* Requirements and policy which provides incentives for stakeholders to share and reuse and penalties for redevelopment or reinvention.

The SSA looks forward to providing future articles to discuss ongoing implementation of the principles and goals of fully interoperable, net-centric CBRN capabilities for the Warfighter. For any questions or suggestions, please contact David W. Godso at godso@spawar.navy.mil.

## Article Updates

**The following changes have occurred since this article was originally published** :

* The author, David Godso, is now the Chief Systems Engineer for JPM IS.

**Implementing the MOU**

* Thomas Swanson is now the point of contact for the JCBRN Architecture Working Group. He can be reached at tswanson@spawar.navy.mil

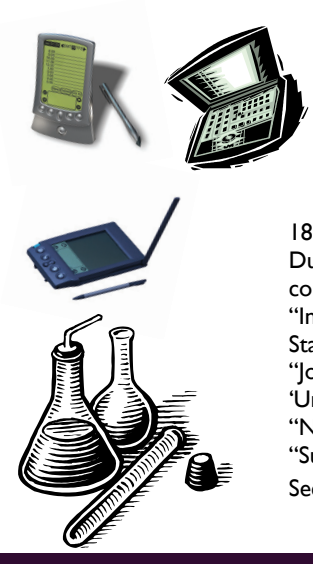
**SSA Architecture Team Future Initiatives**

* The "Net-Ready" contracts language and specifications has been developed and SSA is now working to distribute and to assist programs in utilizing it.
* The SSA is working with and supporting the Major Defense Acquisition Program (MDAP) Integration Team to ensure that JPEO-CBD capability is aligned with MDAP needs.

**Summary**

* Claude Speed has taken the duties as Chief Software Architect for the SSA and is the point of contact for architecture issues. He can be reached at cspeed@spawar.navy.mil.
* Josh Pressnell has taken the duties as Technical Director for the SSA and is the point of contact for all technical issues. He can be reached at pressnel@spawar.navy.mil.

## Science & Technology



The SSA Science and Technology (S&T) group's Dr. LorRaine Duffy and Ms. Sue Floyd organized the Third Annual Joint Chat Systems Conference, held at SSC San Diego on 18 and 19 October 2006. Dr. Duffy's presentations for this conference included "Introduction to Joint Chat/ Status of DOD Chat Systems;" "Joint Chat Continuing 'Unofficial' Requirements List;" "Navy Chat Update;" and "Summary of Continuing IRC Security Issues."

Dr. Duffy's Grand Challenge Proposal involving a data glove and symbolic language has been accepted as a SSC San Diego S&T proposal, with funds also from Defense Threat Reduction Agency (DTRA). This proposal offers many different prospects for augmenting chat and enabling chat in extreme environments. For example, one research issue is to explore the use of a glove that translates gestures into American Standard Code for Information Interchange (ASCII) characters, which means that they can also be used to transmit symbols that map into fonts for use in environments where typing on a keyboard is either difficult or impossible. Potential applications include the clean-up phase of chemical attacks or spills. Another aspect of this research proposal is the development of a symbolic language. Research efforts will focus on symbology used in chat now and ways to augment this symbology with color, different symbols, and perhaps an auditory display that can be used in parallel with other designations to increase situational understanding and the speed at which emerging situations can be communicated.

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# Data Management

## The CBRN Data Model Update

### Background

The CBRN Data Model is a joint project that is managed out of the JPM IS within the overarching Joint Program Executive Office for Chemical Biological Defense (JPEO CBD). The Software Support Activity (SSA) Data Management's mission is to promote the interoperability and reuse of CBRN data across all DoD programs that produce or consume CBRN data. The SSA Data Management Team and the CBRN Data Model are:

* Focused on supporting the migration of the JPEO CBD to a fully net-centric environment for CONUS and OCONUS deployed forces
* Compliant with the DoD Information Standards Registry (DISR)
* Compliant with the legacy Common Operating Environment (COE) with translation to and support for the emerging Net-Centric Enterprise Services (NCES) environment
* Being designed for use in Service Oriented Architectures (SOA)
* Can integrate with existing Global Command and Control Systems (GCCS), as being designed to support the coming Joint Command and Control (JC2) systems.
* The basis for interoperability with NATO and/or coalition partners.

The primary goal is to eliminate interoperability failures by mapping current and legacy CBRN

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# Integration and Test

*(Continued from page 2)*

activities are restricted to laboratories, highly controlled closed environments, or M&S. The concern regarding environmental issues is likely to increase over time and will continue solidifying the utility of M&S in today's society.

As times have changed, the entire Department of Defense has embraced the use of M&S because of its inherent ability to increase program efficiency by predicting system capabilities along with their shortcomings. The discipline of M&S has become a key factor in many industries in the areas of design and engineering. From the medical industry to the manufacturing industry, M&S is currently used in one form or another. The future of M&S is on a growth track as the requirements for military organizations to use M&S in program development and testing becomes stricter and more defined.

When discussing M&S, it is important to recognize that there are different types of tools. Some M&S tools involve hardware, actual military equipment, or personnel, while other M&S tools are strictly software based. Because of this, M&S can be decomposed into separate categories, which include the following:

- *Constructive* –involves simulated people operating simulated systems
- *Virtual* – involves real people operating simulated systems
- *Live* – involves real people operating real systems

Various functional areas may be defined within the scope of M&S. Examples include acquisition, training, and analysis. M&S capabilities can be constructed using tools that operate in a self-contained manner, or in an integrated federation potentially operating across a distributed network.

When M&S is required, it is important to carefully evaluate the cost of reusing, integrating, and/or modifying legacy models vs. the cost to simply develop new models. Factors that might hinder model reuse are: incompatible interfaces, data definitions, message formats, model fidelity, roles and behaviors with other models, portability, software support, and run-time performance. M&S will continue to be a valuable tool in design and engineering when the intended use is well understood, the development procedures are properly followed and documented, model interoperability becomes a serious priority, and leadership makes a serious commitment to maintain/retain its M&S investments.

If you have any questions about modeling and simulation or the SSA Integration and Test team, contact Jennifer Park at jennifer.park@navy.mil

## Data Management

(Continued from page 7)
data to a common reference data model and XML schema – a problem that traditional data strategies have ignored. The use of a data model and XML schema promotes data reuse and standardization. Additionally, this initiative is examining issues of authoritative data sources, and data validation, verification, and certification. This directly supports the overall mission of the CBRN information systems to provide valid, useful data on time to the Warfighters.

The promotion and adoption of the CBRN Data Model throughout the JPEO CBD is key to interoperability across all CBRN systems and the Global Information Grid (GIG). It is also an integral part of DoD's Net Centric Data Strategy and will provide the basis for data exchange within the emerging Net-Centric Enterprise Services.

### CBRN Data Model version 1.5

The CBRN Data Model version 1.5 is planned for release in January 2007. Some of the changes and enhancements included in this release are:

- Remodeling of Sensor Section to be more generic and less sensor-model-specific
- Inclusion of N42.42 Radiation Sensor Specification
- Inclusion of Decontamination (Equipment, Consumables, Tracking)
- Categorization Improvements for Biological and Chemical Materiels
- Representative Sample Data for Two Use Cases
- JEM Variables Support and Detailed Mappings

***The CBRN Data Model version 1.5 is planned for release in January 2007.***

The data model will be open for community review at the technical review planned for February 20-21, 2007.

**Obtaining the CBRN Data Model and Associated Products**
To obtain the CBRN Data Model and to be added to the distribution list, a government sponsor needs to submit a request to Tom Johnson, the SSA Data Technical Director, thjohnso@nps.edu. The release contains numerous files including a document that explains what is contained in the release. If you do not have the ERwin modeling software, then the data elements can be viewed through the HTML files or the data dictionary.

### Conclusions

The Department of Defense is progressing towards a Service Oriented Architecture (SOA) and as such is supporting the development of Net-Centric Enterprise Services (NCES). Though not yet fully realized, JPEO CBD is utilizing the beginning pieces of a net-centric based architecture. As such, they are aligned with current and future DoD architectural and the Net-Centric Operational Warfare (NCOW) strategies. This combined effort between the JPEO CBD and the JPMs demonstrates the initial application of creating a JPEO CBD wide enterprise. It further demonstrates the importance of cross-fertilization of ideas and support within the JPEO community. By having a common basis for semantics and syntax, future and legacy programs will require a minimum of integration and be interoperable within a short time frame.

If you have questions or would like to discuss your data needs, please contact Bill Snee at wsnee@alionscience.com.

## Science & Technology

(Continued from page 6)
Dr. Marion Ceruti is leading a team of experts who are developing a research proposal to improve convoy safety for the U.S. Transportation Command (USTRANSCOM). This interdepartmental research program will demonstrate the feasibility of the next-generation chemical-biological (Chem-Bio) sensors by advancing and integrating development of the ultra-sensitive Micro Electro-Mechanical Systems (MEMS)-based spectrometer hardware, the JWARN Component Interface Device (JCID)-on-a-chip firmware, the Knowledge Amplification by Structured Expert Randomization (KASER) anthrax detector, and the Holster wireless-sensor-network infrastructure. This will enable automated warning of areas and levels of threat prior to discovering them after they have been entered. This research project has two major thrusts. One is the development of next-generation individual and arrayed Chem-Bio sensors. The other is the integration of these sensors into a network where intelligent software agents, data-fusion algorithms, and expert systems can enhance the user's ability to retrieve and understand the data, and to act on the results in a timely manner. Another proposal is in

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## Help Desk

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and transition Tier 1/Tier 2 capabilities that provide a high quality, consolidated enterprise solution. This includes new capabilities from the CBD IT Tier 2 Help Desk that have been implemented to better serve the Warfighter's needs. Once directed from the CBRN-IRC Tier 1 to the CBD IT Tier 2 call center, the following new support capabilities are available; SIPRNET Chat for classified issues, the ability to download the latest patches and updates as they become available, automated metrics reporting and a customer satisfaction survey to keep us abreast of how well we are meeting Warfighter needs.

The software download capability has already provided critical updates to deployed units and restored degraded or disabled systems to full operational status within hours, versus the days or weeks needed to ship a CD. In addition to readily available software, version specific training materials, user's manuals, FAQs and other self-help materials are provided on the website.

The SSA Help Desk continues to meet with the Joint Program Managers (JPMs) to gather information and discuss consolidated CBD IT Help Desk availability, capabilities, and implementation requirements. Many of these programs are members of families of systems and as such will benefit from a consolidation of those Help Desk services for all programs within that family.

Cost effectively coordinating the IT support between these programs is a significant benefit of the consolidated CBD Help Desk solution.

JPEO-CBD programs interface with many programs external to the JPEO-CBD Enterprise, including databases from which program information is drawn and the Command, Control, Communications, Computers and Intelligence (C4I) systems that host the JPEO-CBD programs. The SSA Help Desk assists in establishing necessary interfaces with these external programs through the development of Business Rules. Business Rules are basically a Memorandum of Understanding between the Help Desk, the applicable JPM, and an external program defining the processes by which reported problems will be handled and by whom.

If you have questions about the CBD Help Desk solutions, please contact the SSA Help Desk, Paul Miller at pmiller@spawar.navy.mil.

**Contact the SSA Help Desk team to discuss your Help Desk needs**

## Science & Technology

***Chem-bio and toxic industrial materials and chemicals are more of a threat than are nuclear weapons today***

*(Continued from page 8)*
progress involving the same group of scientists and engineers and concerning the same technology to be submitted as an Advanced Concept Technology Demonstration (ACTD).

Dr. Meriah Arias-Thode, attended the Association of the United States Army conference in Washington, DC, 9-12 October 2006. She talked with several personnel working on Chem-Bio related topics and has written a trip report available for any who may be interested. She is considering setting up a database of S&T abstracts. She met with Al. J. Mauroni, author of the book Where are the WMD's? The Reality of Chem-bio Threats on the Homefront and the Battlefront. Mr. Mauroni works with Northrop Grumman and supports the DTRA CB Directorate. The primary message of his talk was that 20-30-year-old buried Weapons of Mass Destruction (WMDs) are not a threat, but the real threat to the US is that the technical expertise of the scientists likely still exists. Moreover, he stated that Chem-Bio and toxic industrial materials and chemicals are more of a threat than are nuclear weapons today, and that the Army needs the following improvements in Chem-Bio defense: better method of testing potential hazards, in place of outdated M8 paper on the end of stick; improved medical countermeasure; and modern methods for decontamination of inorganic material and buildings.

For more information regarding these efforts or SSA S&T in general, contact the SSA S&T lead, Dr. LorRaine Duffy at lorraine.duffy@navy.mil.

**JPEO-CBD**
**SOFTWARE**
**SUPPORT**
**ACTIVITY**

SPAWAR Systems Center
San Diego (SSC San Diego)
Code 246207
53560 Hull Street
San Diego CA 92152-5001

Phone: 619-553-5410
Fax: 619-553-6902
E-mail: douglas.hardy@navy.mil

SPAWAR
Systems Center
San Diego

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Feedback and suggestions for this newsletter are always welcome.

Please contact:
Dick Brimson
619•553•0806
rbrimson@spawar.navy.mil

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Department of Defense photo

## The SSA Team

**Director** - Kevin Adams
619•537•0198
kevin.adams@jpmis.mil
**Manager** - Doug Hardy
619•553•5410
douglas.hardy@navy.mil
**Deputy Manager** - Dick Brimson
619•553•0806
rbrimson@spawar.navy.mil
**Technical Director** - Josh Pressnell
951•565•0400
pressnel@spawar.navy.mil

### Architecture
**Lead** - Claude Speed
703•244•2906
cspeed@spawar.navy.mil
Dave McKeeby
703•933•3366
dmckeeby@alionscience.com
Bill Frame
619•553•0722
bframe@spawar.navy.mil
David Rousseau
619•553•9221
david.rousseau@navy.mil
Tom Swanson
703•365•9662
tswanson@spawar.nnavy.mil

### Data Management
**Lead** - Bill Snee
703•933•3381
wsnee@alionscience.com
**Data Management Director** - Tom Johnson
703•933•3301
thjohnso@nps.navy.mil

### Data Management (Continued)
Dave Snee
703•933•3342
dsnee@alionscience.com

### Help Desk
**Lead** - Paul Miller
619•553•6759
pmiller@spawar.navy.mil

### Information Assurance
**Lead** - CK Kwiatkowski
619•553•5382
candy.kwiatkowski@navy.mil
Suzana Meszaros
619•664•4479
smeszaros@ausgar.com
Colin Fera
619•553•5664
cfera@ausgar.com

### Integration & Test
**Lead** - Jennifer Park
619•553•2848
jennifer.park@navy.mil
Wally Walter
619•553•4013
walwal@spawar.navy.mil
Jeff Steinman
858•531•0643
steinman@spawar.navy.mil
Nathan Delane
540•663•9426
ndelane@egginc.com

### Science & Technology
**Lead** - Dr. LorRaine Duffy
619•553•9222
lorraine.duffy@navy.mil
Dr. Marion Ceruti
619•553•4068
marion.ceuti@navy.mil
Meriah Arias-Thode
619•553•2671
yolandam@spawar.navy.mil

### Standards & Policy
**Lead** - Dan Reuben
301•580•9127
dreuben@spawar.navy.mil
Hiekeun Ko
619•553•8013
hiekeun.ko@navy.mil

### Configuration Management
**Lead** - Denise Milligan
619•767•4191
dmilli@spawar.navy.mil

### Project Support
Connie Miller-Mathews
703•365•9662
cmathews@spawar.navy.mil

### Admin Assistant
Peggy West
619•553•6899
pwest@spawar.navy.mil

East Coast Fax: 703•365•9818
West Coast Fax: 619•553•6902

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**6. AUTHORS**

C. K. Kwiakowski, J. Park, L. Duffy — **SSC San Diego**

D. W. Godso, D. Rueben — **RTI**

B. Snee — **Alion Science**

D. Brimson — **CSC**

S. Meszaros — **AUSGAR Technologies**

**7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)**

SSC San Diego, San Diego, CA 92152

Ricciardi Technologies, Inc., 8306 Rugby Road, Manassas, VA 20111

AUSGAR Technologies, 3111 Camino del Rio North, Suite 925, San Diego, CA 92108

Alion Science, 1901 N. Bearegard Street, Suite 400, Alexandria, VA 22311

Computer Sciences Corporation, 4045 Hancock Street, San Diego, CA 92110

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Space and Naval Warfare Systems Command
4301 Pacific Highway
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**14. ABSTRACT**

This periodical provides a collection of articles written by the Joint Program Executive Office for Chemical and Biological Defense (JPEO-CBD) Software Support Activity (SSA) as a consistent method of communicating SSA efforts and vision, while providing awareness of key enterprise challenges. The JPEO-CBD is managed by the Space and Naval Warfare Systems Center San Diego and is directed by the Space and Naval Warfare Systems Command. The SSA is a team composed of government and contractor agencies that provide enterprise support in the key tenets of net-centric operations to U.S. Department of Defense chemical and biological programs.

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